Pan Balance Problems: One Worksheet for Missing Weights

Worked example / complete source key

A level balance has a 30 g weight and one unknown block on the left pan. The right pan has a 75 g weight. Find the unknown block's mass.

Answer: 45 g

Reason: Write x + 30 = 75. Subtract 30 from both sides: x = 45. Check: 45 + 30 = 75, so both pans total 75 g.

Check: Substitute 45 into the original equation and confirm left total equals right total.